

USSR / General and Specialized Zoology. Insects.
Pest Insects and Ticks.

P

Abs Jour : Ref Zhur - Biol., No 17, 1958, No 78317

Author : Arakelyan, A. O.

Inst : Armenian Scientific-Research Institute of Viti-
culture, Viniculture and Fruit Growing.

Title : On the Control of the Pear Sawfly.

Orig Pub : Byul. nauchno-tekhn. inform. Arm. n.-l. in-ta
vinogradarstva, vinodyeliya i plodovodstva, 1957,
No. 1, 39-40

Abstract : In the lowlands of Arax, damage to pears caused
by the sawfly reached 70-80% in 1953. The cater-
pillar-like larvae winter inside their cocoons
in the soil at a depth of 2-18 cm. At the time
the buds separate, the sexually-ripe females
hatch, and then lay the eggs in the receptacle.
The hatching of the caterpillar-like larvae coin-
cides with the falling of the petals. Penetrat-

Card 1/2

COUNTRY : USSR P
 CATEGORY : GENERAL AGRICULTURE, ZOOLOGY, INSECTS
 Insect and Mite Pests.
 ABS. JOUR.: Ref Zhur-Biologiya, No. 4, 1959, No. 16293
 AUTHOR : Mardzhanyan, G.M.; Arakelyan, A.O.; Ust'yan, A.K.
 INST. : Armenian Sci. Res. Agric.
 TITLE : Experiment on the Application of Phosphoorganic
 Pesticides in Controlling Pests of Fruit
 Cultures.
 ORIG. PUB.: Byul. nauchno-tekhn. inform. Arm. n.-i. in-t
 zemledeliya, 1957, No.3, 36-41

ABSTRACT : Effective against the pear psylla with discharge
 of 10 liter on a tree were concentrations of
 octamethyl (I) 0.2 - 0.3% with protective ac-
 tion (PA) for 20 - 25 days, M-74 and mercapto-
 phos (II) 0.1% with PA for 1 - 1.5 months. for
 peach rot 0.1% with PA 1 month, but in prac-
 tice the concentration of -.05% was a ce table;
 for Bryobia radikorzovi 0.1% of I and II with
 PA 1 month. Both preparations were effective
 against the apple leafroller. M-74 was equal

CARD: 1 / 3

COUNTRY :
CATEGORY : GENERAL & SPEC. ZOOLOGY, INSECTS

ABS. JOUR.: Ref Zhur -Biologiya, No. 4, 1959, No. 16293

Author :
INST. :
TITLE :

ORIG. PUB.4

ABSTRACT to II in its effectiveness for Bryobia redikor-
zovi and the leafroller. The phytocidal prop-
erties of I and II were substantially mani-
fested on leaves of the fruit plants in a con-
centration of 0.2%, but 0.25 - 0.5% concentra-
tion of I and 0.3% concentration of II resulted
in the shedding of the leaves of the apple and
and apricot trees. Of the three chemical poi-
sons tested II was considered to be outstand-
ing. For young orchards and nurseries which

CARD : 2 /3

COUNTRY :
CATEGORY : GENERAL & SPEC. ZOOLOGY, INSECTS

ABS. JOUR: Ref Zhur - Biologiya, No. 4, 1959, No. 16293

AUTHOR :
INST. :
TITLE :

ORIG. PUB.:

ABSTRACT are not fruit-bearing, a 0.1% emulsion of II is of practical value.

CARD: 3 / 3

ARAKELIAN, A.O.; SALAKHYAN, B.V., agronom po zashchite rasteniy

Future use of phosphorus organic compounds. Zashch. rast. ot
vred. i-bol. 3 no.5:32, S-0 '58. (MIRA 11:10)

1. Zaveduyushchiy otdelom zashchity rasteniy Armyanskogo instituta
vinogradarstva, vinodeliya i sadovodstva (for Arakelyan). 2. Treat
sovhozov Armyanskoy SSSR (for Salakhyan).
(Phosphorus organic compounds) (Plant lice)

ARAKELYAN, A.O., kand.sel'skokhoz.nauk

Effect of chlorinated terpenes and DDT on the caterpillars of the apple moth and the brown orchard mite. Zashch. rast. ot vred. i bol. 6 no.4:29 Ap '61. (MIRA 15:6)

1. Armyanskiy nauchno-issledovatel'skiy institut vinogradarstva, vinodeliya i plodovodstva, g. Yerevan.

(Insecticides)

(Fruit—Diseases and pests)

ARAKELIAN, A.O., kand. sel'skokhoz. nauk; KASUMYAN, S.A.

Phosphorus organic pesticides for controlling the greenhouse
aphid *Myzodes persicae* on the peach. Zashch. rast. ot vred.
i bol. 6 no.10:39 0 '61. (MIRA 16:6)

1. Armyskiy institut vinogradarstva, vinodeliya i
plodovodstva, Yerevan.

(Armenia—Peach—Diseases and pests)
(Armenia—Plant lice—Extermination)

ARAKELYAN, A.O.

Biology of the plum moth (*Laspeyresia funebrana* Tr.) and measures for its control in Armenia. Izv. AN Arm. SSR. Biol. nauki 15 no.1:77-86 Ja '62. (MIRA 15:2)

1. Institut vinogradarstva, vinodeliya i plodovodstva Ministerstva sel'skogo khozyaystva Armyanskoy SSR.
(ARMENIA PLUM DISEASES AND PESTS)

KOROBITSIN, V.G., nauchnyy sotrudnik; ARAKELIAN, A.O., kard. sel'skokhoz.
nauk; NIKOLAYEV, G.V., student; SEMAKOV, V.V., nauchnyy sotrudnik;
YEPANES'ENKOV, I.B., entomolog

Brief information. Zashch. rast. ot vred. i bol. 9 no.8:
46-49 '64.

(MIRA 17:12)

1. Nikitskiy botanicheskiy sad (for Korobitsin).
2. Institut
vinogradarstva, vinodeliya i plodovodstva, Yerevan (for Arakelyan).
3. Kazakhskiy universitet, Alma-Ata (for Nikolayev).
4. Kamchatskaya
sel'skokhozyaystvennaya opytnaya stantsiya (for Semakov).

TER-STEPANYAN, G.I.; ARAKELIAN, A.P.

Types of hydrogeological transverse canyons in lavas with
underlying clay. Dokl. AN Arm. SSR 39 no.4:245-249 '64.
(MIRA 18:1)

1. Institut geologicheskikh nauk AN ArmSSR. Predstavleno
akademikom AN ArmSSR K. Paffengol'tsem.

ARAKELIAN, B.L. (Batumi)

New type of diaphanoscope with two bulbs. Vest. oph-rin 17
no. 4:62 J1-Ag '55. (MLRA 8:10)
(OTORINOLARYNGOLOGY, apparatus and instruments)
diaphanoscope with 2 lamps)

ARAKELIAN, Babken Nikolayevich

Academic degree of Doctor of Historical Sciences, based on his defense, 26 October 1954, in the Council of the Inst of History of the Acad Sci, ArSSR, of his dissertation entitled: "The towns of Armenia in the 9th - 13th centuries."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 17, 9 July 55, Byulleten' MVO SSR, No. 17, Sept 1956, Moscow, pp 9-16, Uncl. JPRS/NY-435

MOVSISYAN, G.V.; SARKISYAN, M.S.; ARAKELYAN, E.A.

Absorption of acetylene by liquid ammonia and its desorption
by gaseous ammonia at low temperatures. Izv. AN Arm.SSR.
Khim. nauki 18 no.2:209-213 '65. (MIRA 18:11)

1. Kirovanskiy nauchno-issledovatel'skiy i proyektnyy
institut khimii Soveta narodnogo khozyaystva Armyanskoy
SSR. Submitted February 21, 1964.

BABAYAN, A.T.; AZIZYAN, T.A.; ARAKELIAN, E.M.; GEVORKYAN, S.B.;
MIRZOYAN, M.K.

Cleavage reactions in quaternary ammonium compounds. Report No.1:
Reaction of salts containing a butyn-2-yl group with alkali
hydroxide. Izv.AN Arm.SSR.Khim.nauki 15 no.5:429-434 '62.
(MIRA 16:2)

1. Institut organicheskoy khimii AN Armyanskoy SSR.
(Ammonium compounds).
(Alkalies)
(Butynyl group)

ARAKELIAN, G.S.; LAPSHOVA, Z.G., inzh.

New compound for cleaning dirt and oil stains on fabrics in loom state. Tekst.prom. 22 no.9:62-63 S '62. (MIRA 15:9)

1. Nachal'nik tkatskogo proizvodstva kombinata "Trekhgornaya manufaktura" imeni Dzerzhinskogo Moskovskogo gorodskogo soveta narodnogo khozyaystva (for Arakelyan). 2. Nauchno-issledovatel'skaya laboratoriya kombinata "Trekhgornaya manufaktura" imeni Dzerzhinskogo Moskovskogo gorodskogo soveta narodnogo khozyaystva (for Lapshova).

(Cleaning compounds)

ARAKEL'YAN, G.V., inzh.; TSOY, L.G., inzh.

Timber carriers without ballast. Sudostroenie 27 no.11:8-10
N '61. (MIRA 15:1)

(Timber--Transportation)
(Freighters)

DORIN, V.S., kand.tekhn.nauk; ARAKEL'YAN, G.V., inzh.; LOGACHEV, S.I., inzh.;
NIKOLAYEV, M.M., inzh.

Advantage of designing large-tonnage tank vessels with excess
metacentric height. Sudostroenie 29 no.7:5-8 J1 '63.

(Tank vessels) (Naval architecture) (MIRA 16:9)

... ..

TITLE: Types of fishing vessels for export

SOURCE: Rybnoye khozyaystvo no. 7, 1961, 29-31

TOPIC TAGS: oceangoing fishing vessel, fishing vessel design, fishing vessel

ABSTRACT:

ACCESSION NR. AP5019170

at speeds above optimum for fishing ranges at 1,000 miles distance. The results of calculations seem to be confirmed by the performance of the Far-Eastern fishing fleet. On 2. 10. 1958, 2 figures.

1. 10. 1958

2. 10. 1958

ENCLOSURE

5. 10. 1958

ARAKEL'YAN, G.V.

Content of green pigments in apricot varieties different
as to their frost resistance in Armenia. Izv. AN Arm.
SSR. Biol. nauki 18 no.9:51-54 S '65.

(MIRA 18:12)

1. Kafedra anatomii i fiziologii rasteniy Yerevanskogo
gosudarstvennogo universiteta. Submitted November 9,
1964.

32(1)

AUTHOR:

Arakelyan, I.

SOV/84-59-10-39/53

TITLE:

Twice As Fast

PERIODICAL:

Grazhdanskaya aviatsiya, 1959, Nr 10, p 27 (USSR)

ABSTRACT:

This is a note on the introduction of the An-10 aircraft on the route Moscow-Khar'kov, as of September 1959. The 85-passenger aircraft is twice as fast as the previously used aircraft. The first flight took place on 9 September, lasting 1 hour and 10 minutes, at an altitude of 9,000 m. The author also mentions airlines from Moscow to Kiyev and Simferopol'.

Card 1/1

ARAKELIAN, Inna

Heart beats for people. Grazhd.av. 18 no.1:9-12 Ja '61. (MIRA 14:3)
(Kansk—Aeronautics—Relief service)

ARAKELIAN, I. (Nyurba, Yakutskaya ASSR)

In the land of diamonds. Grazhd.av. 18 no.2:26-27 F '61.

(MIRA 14:3)

(Niurba--Aeronautics in surveying)

ARAKELIAN, I.

Everyday life of airmen ("10,000 hours in the air" by [pilot
Grazhdanskogo vozdushnogo flota; Geroi Sovetskogo Soyuza] P.M.
Mikhailov. Grazhd.av. 18 no.5:32 My '61. (MIRA 14:5)
(Air pilots) (Mikhailov, P.M.)

ARAKELYAN, I. (Tbilisi); MELIKIDZE, T. (Tbilisi)

Saving your eyes. Grazhd. sv. no. 3:8 Mr '61.
(Tiflis--Aviation medicine)

(MIRA 14:3)

ARAKELIAN, I.

Anniversary of Borodino. Grazhd,av. 19 no.9:28 S '62.

(MIRA 16:1)

(Borodino, Battle of, 1812)

ARAKELYAN, I.

On weekdays and on holidays. Grazhd.av. 19 no.12:26 D '62.
(MIRA 16:2)

(Air pilots)

LIPKIN, M.Ye.; ARTYKOV, M.S.; ISAYEV, Yu.V.; POLULYAKH, P.A.; VARIVODINA, T.A.;
SHILYAYEV, I.F.; PUN'KO, T.A.; ANDREYEVA, A.P.; BAKULINA, L.I.;
ABRAMOVA, S.G.; KLIMOVA, T.K.; YEGOROV, V.A.; KEPEYEV, N.I.; KABIROVA,
M.B.; DASHEVSKIY, V.V.; SORKIN, Yu.I.; KOLENOVICH, A.I.; SERGEYEVA,
L.I.; NAGAYEV, V.N.; NESTEROVA, G.N.; ALEKSEYEVA, N.A.; GOLUBEVA, V.N.;
ANISIMOVA, T.I.; OVASAPYAN, O.V.; GALOYAN, V.O.; ARAKELIAN, K.A.

Abstracts of articles received by the editors. Zhur.mikrobiol., epid.
i immun. 42 no.3:147-152 Mr '65. (MIRA 18:6)

ARAKELYAN, M., polkovnik, kand. istoricheskikh nauk

Liberating mission of the Soviet Army. Komm. Vooruzh. Sil 46 no.5:
18-24 Mr '65. (MIRA 18:4)

ARAKELYAN, M.A.

Applying the probability method to the determination of absorption
line profiles. Astron.zhur. 37 no.6:1012-1020 N-D '60. (MIRA 13:12)

1. Leningradskiy gosudarstvennyy universitet.
(Stars—Spectra)

ARAKELYAN, M. A.

Arakelyan, M. S.: "Spectrophotometric investigation of algal." Leningrad Order of Lenin State University named after A. A. Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Candidate in Physicomathematical Science)

So: Knizhnaya letopis', No 27, 1956. Moscow. Pages 94-109; 111

ARAKELIAN, M.A.; AMBARTSUMYAN, V.A., otvetstvennyy redaktor; KAPLANYAN, M.A.,
tekhnikeskiiy redaktor.

[Spectrophotometric investigation of Algol] Spektrofotometricheskoe
issledovanie Algolia. Erevan, 1957. 65. p. (Byurakan. Observatoriia.
Soobshcheniia, no.21) (MIRA 10:5)
(Spectrophotometry) (Stars, Variable)

Arakelyan, M.R.

ARAKELIAN, M.R.

On the rotational effect of obscure double stars. Izv. AN Arm.
SSR. Ser. fiz.-mat. nauk 10 no. 2: 75-80 '57. (MIRA 10:8)

L. Syurakanskaya astrofizicheskaya observatoriya Akademii nauk
Armenyanskoy SSR.

(Stars, Double)

3(1)

AUTHOR:

Arakelyan, M.A.

SOV/22-11-5-6/9

TITLE:

On the Velocity Dispersion of the Dwarves With Emission Lines
(O dispersii skorostey karlikov s emissionnymi liniyami)

PERIODICAL:

Izvestiya Akademii nauk Armyanskoy SSR, Seriya fiziko-matematicheskikh nauk, 1958,

Vol 11, Nr 5, pp 79 - 84 (USSR)

ABSTRACT:

On the basis of the data of the general catalogue of R. Wilson [Ref 8] (45 stars) and of the velocity catalogue of Dyer [Ref 9] for dwarves (11 stars) the author calculated the coordinates of the apex, the solar velocity and the K-effect for dwarves with emission lines of hydrogen. For determining the velocity dispersion of the considered group of stars there was constructed the distribution of the peculiar velocities and the optimum distribution curve. Results : The determined K-effect of 2 km sec^{-1} is probably the lower boundary for the real value; the dispersion of the peculiar velocities of the dwarves of the type M with emission lines of hydrogen and of the ionized calcium amounts to 16 km sec^{-1} .

Card 1/2

On the Velocity Dispersion of the Dwarves With
Emission Lines

SOV/22-11-5-6/9

There are 2 figures, 1 table, and 10 references, 3 of which
are Soviet, 4 American, 1 French, 1 Chinese, and 1 South-
American.

ASSOCIATION: Byurakanskaya astrofizicheskaya observatoriya AN Armyanskoy
SSR (Byurakan Astrophysical Observatory AS Armenian SSR)

SUBMITTED: August 28, 1958

Card 2/2

ARAKELYAN, M.A.; IVANOVA, N.L.

Problems of continuous emission in the spectrum of AG Draconis.

Soob.Biur.obser. no.24:19-32 '58.

(MIRA 11:12)

(Stars, Variable--Spectra)

ARAKELYAN, M.A.

Color of the emission of relativistic electrons. Dokl. AN Arm. SSR
29 no.1:35-39 '59. (MIRA 12:11)

1. Byurakanskaya astrofizicheskaya observatoriya Akademii nauk Arm-
yanskoy SSR. Predstavleno akademikom V.A. Ambartsumyanom.
(Electrons)

ARAKELIAN, H.A.

Continuous emission in the spectra of explosive stars. Dokl.
AN Arm.SSR 29 no.4:167-174 '59. (MIRA 13:4)

1. Byurakanskaya astrofizicheskaya observatoriya AN ArmSSR.
Predstavleno akademikom V.A.Ambartsumyanom.
(Stars, New--Spectra)

3(1)

AUTHORS: Dolidze, M.V., and Arakelyan, M.A. SOV/33-36-3-7/29

TITLE: The T - Association near ϵ Ophiuchi

PERIODICAL: Astronomicheskii zhurnal, 1959, Vol 36, Nr 3, pp 444-447 (USSR)

ABSTRACT: With the aid of an objective prism attached to the 70 cm meniscus telescope of the Observatory in Abastuman, on July 22 and 23, 1958 and on April 12, 1958 three photographs (combination of a red filter and Kodak OaE emulsion) with the centers $\alpha = 16^h 15^m.9$, $\delta = -24^\circ 08'$; $\alpha = 16^h 27^m.8$, $\delta = -23^\circ 46'$; $\alpha = 16^h 34^m.5$, $\delta = -24^\circ 46'$ were taken. Around the dark nebula connected with ϵ Oph 88 stars with a bright H_α line were detected. The discovered group of stars is similar to the T-associations in Orion and Taurus. There are 4 non-Soviet references, of which 2 are German, 1 American, and 1 Canadian.

ASSOCIATION: Abastumanskaya astrofizicheskaya observatoriya Akademii nauk Gruz SSR (Abastumani Astrophysical Observatory AS Gruz.SSR)
Byurakanskaya astrofizicheskaya observatoriya Akademii nauk Arm SSR (Byurakan Astrophysical Observatory AS Arm.SSR)

SUBMITTED: July 30, 1958
Card 1/1

AKAKELIAN, M. A.

PHASE I BOOK EXPLOITATION

SOV/4798

Akademiya nauk Armyanskoy SSR, Yerevan. Byurakanskaya observatoriya

Soobshcheniya, vyp. 26 (Communications of the Byurakan Observatory of the Academy of Sciences of the Armenian SSR, No. 26) Yerevan, 1959. 82 p. 700 copies printed.

Resp. Ed.: Viktor Amasapovich Ambartsumyan; Tech. Ed.: M.A. Kaplanyan.

PURPOSE: This publication is intended for astronomers and astrophysicists.

COVERAGE: This issue of the Communications of Byurakan Observatory contains articles dealing with the properties of stellar associations in spiral galaxies, investigations of planetary nebulae, and the instruments and techniques used in photometry. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Markaryan, B. Ye. Color and Radiance of Bright Stellar Associations of the Spiral Galaxies M51 and M101

3

Card 1/3

Communications of the Byurakan Observatory (Cont.)	SOV/4798	
Gurzadyan, G.A., and N.A. Razmadze. Polarimetric Investigation of the Planetary Nebula NGC 7026		19
<u>Arakelyan, M.A.</u> Remarks on the Photometric System U, B, V		27
Mirzoyan, L.V., and E. Ye. Khachikyan. Investigation of the Comet Mrkos (1957 d.) I		35
Markaryan, B. Ye. Characteristic Features of the Distribution of Open Clusters in the Galaxy Plane		53
Gurzadyan, G.A. Magnetic Drag in the Planetary Nebulae		59
Gurzadyan, G.A. Observations on One Application of the Electrophotometric Planimeter		77
<p>The author describes a new method of using an electrophotometric planimeter in the processing of microphotograms. The operating principle of this device is based on the measurement of the stream of light equivalent to the given plane. The advantage of this instrument, besides the simplicity and quickness of its operation, is its high precision (measurement error less than 1%) which, moreover, does not depend on the form and size of the measured surface. The efficiency of the proposed method may be increased</p>		
Card 2/3		

Communications of the Byurakan Observatory (Cont.)

SOV/4798

by using two sighting slits with different apertures consecutively, in order to reduce the fluctuation of background brightness. The method of two sighting slits can also be used in other fields of photometry, particularly in measuring star brightness by means of electrophotometry.

AVAILABLE: Library of Congress

Card 3/3

JA/dwm/mas
2-27-61

AMBARTSUMYAN, Viktor Amasaspovich; ARAKELYAN, M.A. [translator]; MIRZOYAN, L.V. [translator], red.; PARSAMYAN, E.S. [translator]; TOVMASYAN, G.M. [translator]; KHACHIKYAN, E.Ye. [translator]; SOBOLEV, V.V., red.; KAPLANYAN, M.A., tekhn.red.

[Scientific works in two volumes] Nauchnye trudy v dvukh tomakh. Pod red. V.V.Soboleva. Erevan, Izd-vo Akad.nauk Armianskoi SSR. Vol.1. 1960. 428 p. Vol.2. 1960. 360 p. (MIRA 13:11)

1. Sotrudniki Byurakanskoy astrofizicheskoy observatorii (for Arakelyan, Mirzoyan, Parsamyan, Tovmasyan, Khachikyan). (Astronomy)

87242

S/O33/60/037/006/011/022
EO32/E514

3,1530 (1057, 1172, 1189)

AUTHOR: Arakelyan, M.A.

TITLE: Application of a Probability Method to the Determination
of Absorption Line Profiles

PERIODICAL: Astronomicheskii zhurnal, 1960, Vol.37, No.6,
pp.1012-1020

TEXT: Sobolev (Ref.1) has developed a theory of radiation transfer using a probability method based on the determination of the probability of escape of a quantum from a medium, i.e. the probability that a quantum "absorbed" by the medium at an optical depth τ will leave the medium in a given direction either immediately or after multiple scattering. The probability of escape of a quantum from the medium is determined only by its optical properties and does not depend on the path taken by the quantum to reach a given point in the medium. It follows that if the escape probability is given for a given medium as a function of τ and the direction of escape, then this function can be used to solve all problems connected with the luminescence of the medium, whatever the strength and disposition of the sources of radiation. The

Card 1/5

87252

S/033/60/037/006/011/022

E032/E514

Application of a Probability Method to the Determination of
Absorption Line Profiles

intensity of radiation leaving a medium consisting of plane-parallel layers can be expressed in terms of the probability of escape of a quantum from the medium $p(\tau, \eta)$ in the following way

$$I(0, \eta) = \int f(\tau) p(\tau, \eta) \frac{d\tau}{\eta},$$

where the integration is carried out over the entire optical depth of the medium and the expression $f(\tau)d\tau$ denotes the amount of energy reaching a volume element 1 cm^2 in cross-section and $d\tau$ cm high per second. η represents the cosine of the angle between the given direction and the normal to the surface of the medium. On the other hand, the probability of escape of a quantum from the given medium is identical with the source function in the problem of the scattering of radiation in this medium when it is illuminated by parallel rays. Thus, a knowledge of the source function in the above problem enables one to solve the problem of the luminescence of a given medium for arbitrary sources of radiation. In the

Card 2/5

87252
S/033/60/037/006/011/022
E032/E514

Application of a Probability Method to the Determination of
Absorption Line Profiles

present paper the probability of escape of a quantum from a semi-infinite medium is represented in terms of the approximate expressions for the source function obtained by Chandrasekar (Ref.2) in the problem of scattering of light in a medium when it is illuminated by parallel rays. The probabilities obtained in this way are used to determine absorption line profiles in stellar spectra when the source distribution is given as a linear function of the optical depth. The line profiles thus obtained are then compared with the profiles calculated using the exact Planck formula. It is shown that the difference between the results obtained on the linear approximation and those obtained using the exact Planck formula is very small. The numerical calculations from which the above conclusion was obtained were concerned with the wavelength 3934 Å and a star having an effective temperature of 5700 deg. It was assumed in these calculations that the line width due to damping bears the ratio of 10^{-2} to the Doppler width. Table 4 gives the ratios of the values of $B_{\nu}(T)$ obtained from the exact formula and

Card 3/5

87252

S/033/60/037/006/011/022

E032/E514

Application of a Probability Method to the Determination of
Absorption Line Profiles

the linear approximation for different surface temperatures, wave-
lengths and optical depths.

Table 4

T. λ τ	5000°			10000°			20000°		
	λ 6563 Å	λ 4861 Å	λ 3646 Å	λ 6563 Å	λ 4861 Å	λ 3646 Å	λ 6563 Å	λ 4861 Å	λ 3646 Å
0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.3	1.01	0.99	0.95	1.03	1.03	1.02	1.02	1.02	1.00
0.5	1.02	0.97	0.89	1.05	1.05	1.03	1.05	1.05	1.01
1.0	1.07	0.95	0.79	1.14	1.13	1.09	1.13	1.13	1.07
1.5	1.11	1.08	0.72	1.24	1.21	1.15	1.22	1.23	1.15

It is clear from this table that at an optical depth of $\tau = 1$ the
maximum departure of B_{λ} obtained on the linear approximation from
Card 4/5

87252
S/033/60/037/006/011/022
E032/E514

Application of a Probability Method to the Determination of
Absorption Line Profiles

the exact value is 20% for the values of λ and T shown in the table. It is, therefore, concluded that the difference between line profiles (Eqs. 21 and 22) as calculated by the two methods (approximate and exact, respectively) will be equally small. There are 4 tables and 2 Soviet references, one a translation from English.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet
(Leningrad State University)

SUBMITTED: May 6, 1960

Card 5/5

ARAKELYAN, M.A.; ZVONAREVA, M.L.; KOLESOV, A.K.

Calculating the Rosseland mean value for the atmospheres of
hot stars. Uch. Zap. LGU no.323:37-44 '64. (MIRA 17:12)

ABAKELIAN, M.A.

~~Disruption of the normal sex ratio in the case of farm animal inbreeding.~~
Disruption of the normal sex ratio in the case of farm animal inbreeding. . Report 1. Izv.AN Arm.SSR.Est.nauki no.10:69-84 '87.(MLRA 9:8)

1. Institut zhivotnovodstva Akademii nauk Armyanskoy SSR, Sektor genetiki i selektsii sel'skokhozyaystvennykh zhivotnykh.
(Inbreeding)

ARAKELIAN, M.A.

Effect of different raising conditions on the weakening of depression
caused by the mating of close relatives. Izv. AN Arm. SSR. Biol. i
sel'khoz. nauki. 2 no. 1: 65-69 '49. (MLRA 9:8)

1. Institut zhivotnovodstva Akademii nauk Armyanskoy SSR.
(INBREEDING)

ARAKELIAN, H. A.

33351. Vliyaniye Razlichnykh Ucloviy Vospitaniya Na Oslableniye Depressii Pri Rodstvennom Sparivanii. Agrobiologiya, 1949, No. 5, C. 127-30.

SO: Letopis' Zhurnal'nykh Statey Vol. 45, Moskva, 1949

"Effect of Various Factors in the Elimination of the Cause of Sterility Due to Intralineal Mating," Agrobiol. No.5, 1949
Inst. Animal Husbandry, AS Armenian SSR

ARAKELYAN, M.A.

Inheritance of acquired characters from two paternal forms in animals.
Izv.AN Arm.SSR.Biol.i sel'khoz.nauki. 5 no.3:53-67 '52. (MLRA 9:8)

1. Institut zhivotnovodstva Ministerstva sel'skogo khozyaystva
Armyanskoy SSR.

(INHERITANCE OF ACQUIRED CHARACTERS)

ARAKELYAN, M.A.; PAVLOV, Ye.F.

~~Arakelyan, M.A.; Pavlov, Ye.F.~~
Ovulation and viability of embryos in rabbits with denervation of
ovaries. Zhur.ob.biol. 14 no.6:424-434 '53. (MLRA 6:11)
(Nervous system) (Ovaries) (Fetus)

ARAKELYAN, M.A.; MARKARYAN, A.Kh.

Effect of seed of preceeding procreator on maternal organism and
on following offsprings. Zhur. ob. biol. 15 no.4:241-251 J1-Ag '54.
(MLRA 7:9)

(GENETICS,

eff. of first mating on maternal organism & on offsprings
of second mating with different males in rabbits)

ARAKELYAN, M.A.: PAVLOV, Ye.F.

Heredity of functional asymmetry of the reproductive organs in rabbits. Zhur.ob.biol.16 no.3:169-177 My-Je '55. (MLRA 8:9)

(HEREDITY,

of genital acquired abnorm. in rabbits)

(GENITALIA, FEMALE, abnormalities,

asymetry, hered. of acquired defects in rabbits)

(ABNORMALITIES,

asymetry of female genitalia, hered. of acquired defects in rabbits)

ARAKELIAN, M. A. Doc Agr Sci -- (diss) "The Influence of ~~the~~ ^{breeding} ~~Conditions of~~ ^(Conditions upon) ~~HYMN~~ ^{Survival Rate} Cultivation and Fertilization on the Vitality and Heredity ^{and characteristics} of Agricultural Livestock." ~~XXXXXXXXXX~~ Yerevan, 1957.
61 pp 21 cm. (Min of Agriculture USSR, Yerevan Zooveterinary Inst),
130 copies (KL, 25-57, 115)

L 58832-65 EPR Ps-1.

ACCESSION NR: AP5015432

UR/0173/65/018/002/0055/0060

AUTHOR: Arakelyan, M. G.

TITLE: Experimental investigation of spherical bearings with air lubrication

SOURCE: AV ArmSSR. Izvestiya. Seriya tekhnicheskikh nauk, v. 18, no. 2. 1965, 55-60

TOPIC TAGS: air bearing, spherical bearing, gas bearing, 155 air compressor, 155 air compressor, 155 air compressor, 155 air compressor

ABSTRACT: The load-flow-pressure characteristics of spherical, air lubricated bearings (see Fig. 1 on the Enclosure) with diameters of 15.01, 22.1, and 24.0 mm were investigated. The results are presented in the form of graphs and tables.

The load-flow-pressure characteristics of spherical, air lubricated bearings were investigated. The results are presented in the form of graphs and tables.

The results are presented in the form of graphs and tables. The load-flow-pressure characteristics of spherical, air lubricated bearings were investigated. The results are presented in the form of graphs and tables.

L 53532-55

ACCESSION NR: AP5015432

0.030 m³/min, 0.055, 32 kg (minimum): 2.74, 0.142, 0.062, 140.4; 0.15, 0.230, 0.060, 140.4; 0.25, 0.310, 0.058, 140.4; 0.35, 0.390, 0.056, 140.4; 0.45, 0.470, 0.054, 140.4; 0.55, 0.550, 0.052, 140.4; 0.65, 0.630, 0.050, 140.4; 0.75, 0.710, 0.048, 140.4; 0.85, 0.790, 0.046, 140.4; 0.95, 0.870, 0.044, 140.4; 1.05, 0.950, 0.042, 140.4; 1.15, 1.030, 0.040, 140.4; 1.25, 1.110, 0.038, 140.4; 1.35, 1.190, 0.036, 140.4; 1.45, 1.270, 0.034, 140.4; 1.55, 1.350, 0.032, 140.4; 1.65, 1.430, 0.030, 140.4; 1.75, 1.510, 0.028, 140.4; 1.85, 1.590, 0.026, 140.4; 1.95, 1.670, 0.024, 140.4; 2.05, 1.750, 0.022, 140.4; 2.15, 1.830, 0.020, 140.4; 2.25, 1.910, 0.018, 140.4; 2.35, 1.990, 0.016, 140.4; 2.45, 2.070, 0.014, 140.4; 2.55, 2.150, 0.012, 140.4; 2.65, 2.230, 0.010, 140.4; 2.75, 2.310, 0.008, 140.4; 2.85, 2.390, 0.006, 140.4; 2.95, 2.470, 0.004, 140.4; 3.05, 2.550, 0.002, 140.4; 3.15, 2.630, 0.000, 140.4; 3.25, 2.710, 0.000, 140.4; 3.35, 2.790, 0.000, 140.4; 3.45, 2.870, 0.000, 140.4; 3.55, 2.950, 0.000, 140.4; 3.65, 3.030, 0.000, 140.4; 3.75, 3.110, 0.000, 140.4; 3.85, 3.190, 0.000, 140.4; 3.95, 3.270, 0.000, 140.4; 4.05, 3.350, 0.000, 140.4; 4.15, 3.430, 0.000, 140.4; 4.25, 3.510, 0.000, 140.4; 4.35, 3.590, 0.000, 140.4; 4.45, 3.670, 0.000, 140.4; 4.55, 3.750, 0.000, 140.4; 4.65, 3.830, 0.000, 140.4; 4.75, 3.910, 0.000, 140.4; 4.85, 3.990, 0.000, 140.4; 4.95, 4.070, 0.000, 140.4; 5.05, 4.150, 0.000, 140.4; 5.15, 4.230, 0.000, 140.4; 5.25, 4.310, 0.000, 140.4; 5.35, 4.390, 0.000, 140.4; 5.45, 4.470, 0.000, 140.4; 5.55, 4.550, 0.000, 140.4; 5.65, 4.630, 0.000, 140.4; 5.75, 4.710, 0.000, 140.4; 5.85, 4.790, 0.000, 140.4; 5.95, 4.870, 0.000, 140.4; 6.05, 4.950, 0.000, 140.4; 6.15, 5.030, 0.000, 140.4; 6.25, 5.110, 0.000, 140.4; 6.35, 5.190, 0.000, 140.4; 6.45, 5.270, 0.000, 140.4; 6.55, 5.350, 0.000, 140.4; 6.65, 5.430, 0.000, 140.4; 6.75, 5.510, 0.000, 140.4; 6.85, 5.590, 0.000, 140.4; 6.95, 5.670, 0.000, 140.4; 7.05, 5.750, 0.000, 140.4; 7.15, 5.830, 0.000, 140.4; 7.25, 5.910, 0.000, 140.4; 7.35, 5.990, 0.000, 140.4; 7.45, 6.070, 0.000, 140.4; 7.55, 6.150, 0.000, 140.4; 7.65, 6.230, 0.000, 140.4; 7.75, 6.310, 0.000, 140.4; 7.85, 6.390, 0.000, 140.4; 7.95, 6.470, 0.000, 140.4; 8.05, 6.550, 0.000, 140.4; 8.15, 6.630, 0.000, 140.4; 8.25, 6.710, 0.000, 140.4; 8.35, 6.790, 0.000, 140.4; 8.45, 6.870, 0.000, 140.4; 8.55, 6.950, 0.000, 140.4; 8.65, 7.030, 0.000, 140.4; 8.75, 7.110, 0.000, 140.4; 8.85, 7.190, 0.000, 140.4; 8.95, 7.270, 0.000, 140.4; 9.05, 7.350, 0.000, 140.4; 9.15, 7.430, 0.000, 140.4; 9.25, 7.510, 0.000, 140.4; 9.35, 7.590, 0.000, 140.4; 9.45, 7.670, 0.000, 140.4; 9.55, 7.750, 0.000, 140.4; 9.65, 7.830, 0.000, 140.4; 9.75, 7.910, 0.000, 140.4; 9.85, 7.990, 0.000, 140.4; 9.95, 8.070, 0.000, 140.4; 10.05, 8.150, 0.000, 140.4; 10.15, 8.230, 0.000, 140.4; 10.25, 8.310, 0.000, 140.4; 10.35, 8.390, 0.000, 140.4; 10.45, 8.470, 0.000, 140.4; 10.55, 8.550, 0.000, 140.4; 10.65, 8.630, 0.000, 140.4; 10.75, 8.710, 0.000, 140.4; 10.85, 8.790, 0.000, 140.4; 10.95, 8.870, 0.000, 140.4; 11.05, 8.950, 0.000, 140.4; 11.15, 9.030, 0.000, 140.4; 11.25, 9.110, 0.000, 140.4; 11.35, 9.190, 0.000, 140.4; 11.45, 9.270, 0.000, 140.4; 11.55, 9.350, 0.000, 140.4; 11.65, 9.430, 0.000, 140.4; 11.75, 9.510, 0.000, 140.4; 11.85, 9.590, 0.000, 140.4; 11.95, 9.670, 0.000, 140.4; 12.05, 9.750, 0.000, 140.4; 12.15, 9.830, 0.000, 140.4; 12.25, 9.910, 0.000, 140.4; 12.35, 9.990, 0.000, 140.4; 12.45, 10.070, 0.000, 140.4; 12.55, 10.150, 0.000, 140.4; 12.65, 10.230, 0.000, 140.4; 12.75, 10.310, 0.000, 140.4; 12.85, 10.390, 0.000, 140.4; 12.95, 10.470, 0.000, 140.4; 13.05, 10.550, 0.000, 140.4; 13.15, 10.630, 0.000, 140.4; 13.25, 10.710, 0.000, 140.4; 13.35, 10.790, 0.000, 140.4; 13.45, 10.870, 0.000, 140.4; 13.55, 10.950, 0.000, 140.4; 13.65, 11.030, 0.000, 140.4; 13.75, 11.110, 0.000, 140.4; 13.85, 11.190, 0.000, 140.4; 13.95, 11.270, 0.000, 140.4; 14.05, 11.350, 0.000, 140.4; 14.15, 11.430, 0.000, 140.4; 14.25, 11.510, 0.000, 140.4; 14.35, 11.590, 0.000, 140.4; 14.45, 11.670, 0.000, 140.4; 14.55, 11.750, 0.000, 140.4; 14.65, 11.830, 0.000, 140.4; 14.75, 11.910, 0.000, 140

0.117 m³/min, 0.101 mm, 148 kg (minimum): 2.16, 0.217, 0.087, 833; 1.64, 0.317,

7. I. I. Ibragimov et al. Issledovaniye i raschet nagruzheniy kh sfericheskikh podshign kov s vnutrennyimi staticheskoy vozdukhnoy anazkoy. "Mashinostroyeniye," St. perevalov i obzor 1974, No. 1, s. 10-12.

[illegible]

ASSOCIATION: IRFE AN Argyanskoy SSR (IRFE, AN Armenian SSR)

SUBMITTED: 15 Jan 65

ANAL. Calcd for $C_{10}H_{10}O$: C, 88.10%; H, 7.39%. Found: C, 88.1%; H, 7.4%.

Sgt COLONEL MC, DE

NO REIP SOV: 000

OTHER: 001

Cord 2/3

L 588:2-6"

ACCESSION NR: AP5015432

ENCLOSURE: 01

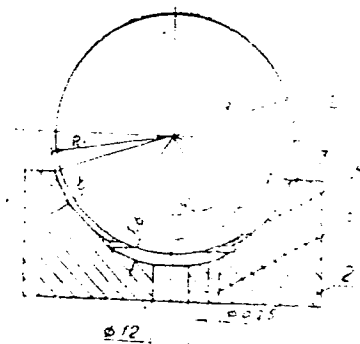
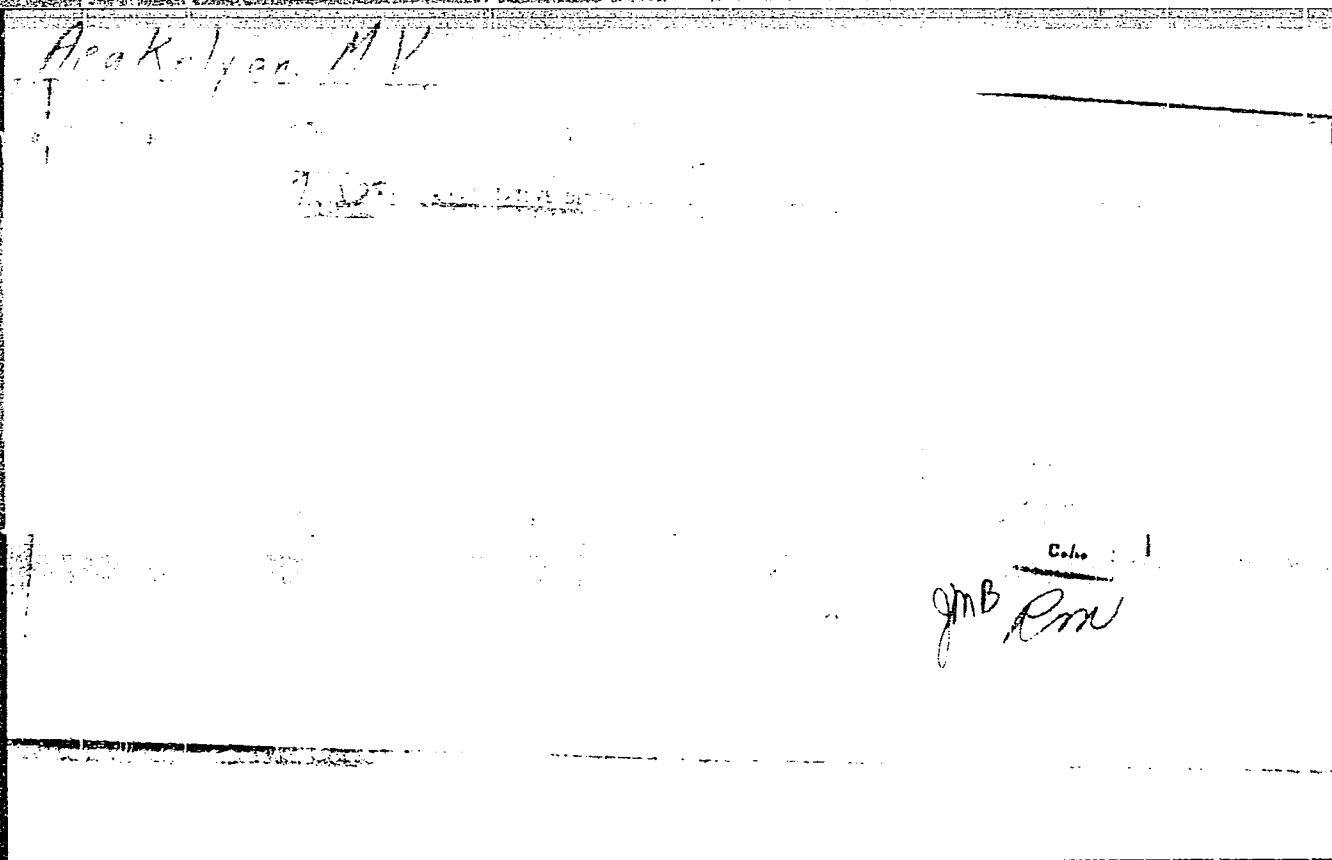


Fig. 1. $l = 0.05$ mm; $\phi_0 = 30^\circ$, $\alpha = 70^\circ$; 1 - sphere, 2 - bearing, 3 - bearing surface, 4 - chamber, 5 - pressure tap

Car 3/3



81457

3.1560

SOV/35-59-8-6324

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 8, p 32

AUTHORS: Dolidze, M.V., Arakelyan, M.V.

TITLE: On a Group of Hydrogen-Emission Stars in Ophiuchus

PERIODICAL: Astron. tsirkulyar, 1958, August 26, Nr 194, p 22

ABSTRACT: Two fields with centers at $\alpha = 16^h 17^m$, $\delta = -24^\circ 40'$ and $\alpha = 16^h 29^m$, $\delta = -24^\circ 20'$ were photographed in the Abastumani Observatory with a lens prism mounted in a 70-cm meniscus telescope and Kodak OaE plates with a KS-10³⁸ light filter. About 30 stars of 12^m to 16^m with H α emission were discovered in a region of $2^\circ \times 2^\circ.5$ (the center at $\alpha = 16^h 20^m$, $\delta = -24^\circ 45'$). Six of them are variables of the T Tau type. All the emission stars are concentrated within an area of 4 square degrees. The dark nebula B42 connected with ρ Oph and bright diffusion nebulae are located also in this region. The spectra of all the bright nebulae are continuous, and their average distance amounts to 150 parsec. Probably they constitute a T-association. N.B. Perova

Card 1/1

137-58-4-8681

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 337 (USSR)

AUTHOR: Arakel'yan, N. A.

TITLE: Preparation of Standard Specimens for Spectroscopic Determination of Impurities in Lead During the Refining Process (Izgotovleniye etalonov dlya spektral'nogo opredeleniya primesey v svintse po khodu rafinirovaniya)

PERIODICAL: Sb. tr. Vses. n.-i. in-ta tsvetn. met., 1956, Nr 1, pp 203-206

ABSTRACT: The preparation of standard specimens for the determination of impurities (I) in Pb by taking samplings at the plant at various stages of the refining process is described. The metal is cast in the form of rods 10 mm in diameter and 100 mm long. The electrodes are checked for homogeneity. Determination of I is performed in several chemical laboratories. The set of standards consists of four groups (I contents in percent) : 1) for simultaneous determination of Cu (0.028-0.123), Bi (0.033-0.20), As (0.13-0.58), and Sb (0.4-1.39); 2) for determination of Sb (0.03-0.9); 3) Ag (0.0003-0.235); 4) Bi (0.0037-0.033).

Card 1/1 1. Lead--Impurities--Determination analysis 2. Lead--Spectroscopic analysis 3. Lead ore--Processing S.S.

S/032/62/028/006/007/025
B104/B101

AUTHORS: Nedler, V. V., and Arakel'yan, N. A.

TITLE: Analysis of pure metals

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 6, 1962, 672 - 674

TEXT: Papers published between 1956 and 1962 dealing with the determination of impurity concentrations in metals and graphite are here discussed. Analytical methods involving enrichment of impurities and spectral analysis methods are considered. The sensitivity of spectral analysis methods may be improved by a more effective excitation of the atoms in the spectrum excitation zone and by a decrease of atom losses from the spectrum excitation zone through diffusion. ✓

Card 1/1

NALIMOV, V.V.; NEDLER, V.V.; ARAKEL'YAN, N.A.

Increase in the sensitivity of emission spectrum analysis using
information on the line contour. Zav.lab. 28 no.3:324-329 '62.
(MIRA 15:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut redkometallicheskey promyshlennosti.
(Spectrum analysis)

ACCESSION NR: AP4030385

S/0171/64/017/002/0131/0136

AUTHORS: Aykazyan, E.A.; Arakelyan, N.M.; Isabekyan, S.Ye.

TITLE: Voltamperometric measurements of electrode polarization in a liquid hydrogen fluoride medium

SOURCE: AN ArmSSR. Izvestiya. Khimicheskiye nauki, v. 17, no. 2, 1964, 131-136

TOPIC TAGS: hydrogen fluoride, anhydrous hydrogen fluoride, electrolyte, voltamperometry, electrode polarization, polarographic curve, compensation potentiometry, auxiliary electrode, rotating disk electrode, reference electrode, three electrode potential registration, perfluoroorganic acid

ABSTRACT: Anhydrous liquid HF is an excellent solvent for inorganic salts and organic substances, forming solutions with good electrolytic properties. The electrochemical method of fluoridation is also being used in the manufacture of perfluoroorganic acids. The process however has been poorly studied, mainly because of the lack of appropriately resistant measuring equipment. An earlier con-

Card 1/3

ACCESSION NR: AP4030385

structed cell with a rotating angular electrode for obtaining polarographic curves (2 electrodes) had the disadvantage of a sharp ohmic potential drop. The new electrolytic cell for voltametric measurements, described in this paper, uses 3 electrodes, measuring the potential by the compensation method; this avoids the above disadvantage. The measuring electrode consists of a rotating platinum or nickel disk, so that only one side serves as electrode (1000 r.p.m.). The equipment consists of 4 interconnected fluoroplast-4 containers: (a) the electrolytic cell with the disk electrode to be polarized, (b) the auxiliary electrode (100 times the surface of the disk electrode), (c) the reference electrode, and (d) serves for the preparation of the solution. The procedure is described (initial nitrogen treatment for removing air and humidity). The polarization curves $i, \psi(i - \text{specific current in milliamperes/cm}^2, \psi - \text{disk electrode potential in volts})$ in a HF medium containing 0.1 moles of KHF_2 were determined visually by an automatic self-scriber and are figured for a varying amount of water. They show flattening upon liberation of oxygen from water in solution and a steep slope afterwards, corresponding to fluorine liberation. Orig. art. has: 3 figures.

Card 2/3

ACCESSION NR: AP4030385

ASSOCIATION: Institut organicheskoy khimii AN ArmSSR (Institute of
Organic Chemistry, AN ArmSSR)

SUBMITTED: 25Sep63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: CH

NR REF SOV: 001

OTHER: 001

Card 3/3

16(1)

AUTHOR: Arakelyan, N.U.

SOV/20-125-4-1/74

TITLE: Improvement of Some Theorems of M.V.Keldysh on the Asymptotic Approximation by Entire Functions (Utochneniye nekotorykh teorem M.V.Keldysha ob asimptoticheskom priblizhenii tselymi funktsiyami)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 695-698 (USSR)

ABSTRACT: Let the continuum E satisfy the condition: there exists an infinitely increasing function $r(t) > 0$ so that every point z of the complement of E can be combined with the point $z = \infty$ by a Jordan curve lying outside of E and outside of $|\xi| < r(|z|)$. The following theorems generalize the results of Keldysh [Ref 1,2]:
Theorem: Let $f(z)$ be continuous in all finite points of E and analytic in all inner points of E . Let $P(r) \geq 0$ be a function non-decreasing on $[0, +\infty)$,

$$(1) \int_1^{\infty} \frac{P(r)}{r^{3/2}} dr < +\infty.$$

Then for every $\varepsilon > 0$ there exists an entire function $G(z)$ for

Card 1/2

Improvement of Some Theorems of M.V.Keldysh on the SOV/20-125-4-1/74
Asymptotic Approximation by Entire Functions

which on E it holds: $|f(z) - G(z)| < \epsilon e^{-P(|z|)}$. If $\int_1^{\infty} \frac{P(r)}{r^{3/2}} dr = +\infty$,
then the theorem is not valid.

Theorem: If furthermore E lies in the angle $|\arg z| \leq \frac{\alpha}{2}$ and

if in (1) the exponent $3/2$ is replaced by $1 + \frac{\pi}{\alpha}$, then the
same assertion is valid.

There follow two further similar assertions.

The author thanks his teacher Professor M.M.Dzhrbashyan.

There are 3 Soviet references.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

PRESENTED: December 20, 1958, by M.V.Keldysh, Academician

SUBMITTED: December 18, 1958

Card 2/2

ARAKELYAN, N.U. (Yerevan)

Asymptotic approximation by integral functions in infinite regions.

Mat. sbor. 53 no. 4:515-538 Ap '61.

(MIRA 14:5)

(Topology)

ARAKELYAN, N.U.

Uniform approximation by integral functions with estimation of
their growth. Sib. mat. zhur. 4 no.5:977-999 S-0 '63.

(MIRA 16:12)

ARAKELYAN, N.U.

Uniform approximation by integral functions on closed sets.

Izv. AN SSSR. Ser. mat. 28 no.5:1187-1206 S-O '64.

(MIRA 17:11)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR.

ARAKELIAN, N.U.

Uniform and asymptotic approximation by integral functions
on unbounded closed sets. Dokl. AN SSSR 157 no.1:9-11 J1 '64
(MIRA 17:8)

1. Institut matematiki i mekhaniki AN ArmSSR, Predstavleno
akademikom M.V. Keldyshem,

ARAKELYAN, Osip Arshakovich; MOLCHANOV, M.P., red.; SHLIKHT, A.A.,
tekh.n.red.

[Problems in reviewing mathematics in secondary schools]
Nekotorye voprosy povtoreniia matematiki v srednei shkole.
Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960.
83 p. (MIRA 14:3)
(Mathematics--Study and teaching)

ARAKJELYAN, O. G.

30551

Sluchai raneyeviya syeritsa. Trudy Yohyevansk. MyeD. IN-TA, VYP. 6,
1949, s. 123-26.

SO: LETOPIS' NO. 34

MNATSAKANOV, T.S.; ARAKELYAN, O.G.

Treatment of pneumonia with combined sulfidin and penicillin. Klin.
med., Moskva 29 no.11:35-38 Nov 1951. (GIML 21:2)

1. Honored Worker in Science Prof. Mnatsakanov; Docent Arakelyan.
2. Of the Faculty Therapeutic Clinic (Head — Honored Worker in Science Prof. T. S. Mnatsakanov), Yerevan Medical Institute.

C. A. ARAKELYAN, D.I.

New calcium and sodium orthosilicates. N. A. Toropov and O. I. Arakelyan: *Doklady Akad. Nauk S.S.S.R.* 72, 365-8(1950).—In a study of the fusion of bauxite ores with lime-soda, the reaction between Ca_2SiO_4 and Na_2FeO_4 at 1200–1300°, in the solid state was examd. Beside β - Ca_2SiO_4 , two new crystal phases were observed which belong to the binary system Ca_2SiO_4 - $\text{Na}_2\text{O} \cdot \text{CaO} \cdot \text{SiO}_2$: hexagonal $2\text{Na}_2\text{O} \cdot 8\text{CaO} \cdot 6\text{SiO}_2$ (I) $n_D = 1.074 \pm 0.004$; $n_D = 1.068 \pm 0.003$; polysynthetic twinning characteristic; and rhombohedral $2\text{Na}_2\text{O} \cdot 4\text{CaO} \cdot 3\text{SiO}_2$ (II), $n_D = 1.034 \pm 0.004$; $n_D = 1.027 \pm 0.004$. The chem. analyses confirm the formulas given for I and II; H_2O exts. from both about 3% alkalis. The x-ray powder diagrams for both are given, in comparison with the Ca_2SiO_4 modifications. W. Rittel

all-Union aluminium - Magnesium Inst.

ARAKELIAN, O.I.

TOROPOV, N.A.; ARAKELIAN, O.I.

Crystallization of γ -alumina from melts of the system: $\text{NaF} - \text{AlF}_3 - \text{Al}_2\text{O}_3$. TSvet. met. 27 no.1:57-58 Ja-F '54. (MLRA 10:9)
(Alumina) (Crystallization)

SOV/137-58-10-20472

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 19 (USSR)

AUTHOR: Arakelyan, O. I.

TITLE: An Investigation of the Phase Composition of Sinter Products in Alumina Production (Issledovaniye fazovogo sostava produktov spekaniya v glinozemnom proizvodstve)

PERIODICAL: V sb.: Legkiye metally, Nr 3. Leningrad, 1957, pp 54-60

ABSTRACT: A study is made of a number of systems containing the compounds Na_2O , Fe_2O_3 , CaO , Al_2O_3 , and SiO_2 . Polymorphic enantiotropic transformations of $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3$ at $450 \pm 15^\circ\text{C}$ and of $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ at $1025 \pm 15^\circ$ are observed. Sintering and thermal decomposition in the high-temperature interval results in the formation not only of $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3$ but of $\beta \cdot \text{Al}_2\text{O}_3$ and $\text{Na}_2\text{O} \cdot 11\text{Al}_2\text{O}_3$, which results in losses of Al_2O_3 on hydrochemical treatment. Enantiotropic polymorphic transformations of solid solutions in the $450\text{-}1025^\circ$ range are observed in the Na aluminate - ferrite system. Dissociation or thermal decomposition of solid solutions with formation of the $\text{Na}_2\text{O} \cdot n\text{Al}_2\text{O}_3 \cdot m\text{Fe}_2\text{O}_3$ phase, insoluble in hydrochemical treatment of the sinter, is possible. In the $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3\text{-}2\text{CaO} \cdot \text{SiO}_2$ system, there is observed, in addition to the phases themselves, a

Card 1/2

SOV/137-58-10-20472

An Investigation of the Phase Composition (cont.)

eutectic intergrowth thereof. Thermal decomposition of these mixtures results in the formation of alkaline alumocalcium silicates of varying composition, not decomposable in caustic solutions. When the $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3 \cdot 2\text{CaO} \cdot \text{SiO}_2$ system contains 37% $2\text{CaO} \cdot \text{SiO}_2$, a eutectic is observed with a melting point of $1110 \pm 10^\circ$, as well as the formation of ferrites of the type of $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$ and a phase having the composition $2\text{Na}_2\text{O} \cdot 8\text{CaO} \cdot 5\text{SiO}_2$, that does not decompose upon dissolution. A diagram of phase fields in the $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot \text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3 \cdot 2\text{CaO} \cdot \text{SiO}_2$ system is adduced, with a description of the phases. Note is taken of the possibility of primary chemical losses of Na_2O and Al_2O_3 into the $2\text{Na}_2\text{O} \cdot 8\text{CaO} \cdot 5\text{SiO}_2$ phase and into the Ca aluminoferrites. It is pointed out that "saturated" alkaline charges are of but limited use when the raw material contains large amounts of Fe oxide.

1. Aluminum oxide--Production
2. Sintered aluminum--Phase studies
3. Aluminum alloys--Decomposition
4. Oxides--Transformations

L. P.

Card 2/2

ARAKELIAN, O.I., Cand Tech Sci -- (diss) "Study of
phase-mineralogical composition of the products of
the ^a ~~SINTERING~~ of bauxite 'saturated' ^{charge} batch."
Len, 1958, 14 pp with drawings (^{Gosplan} ~~State Plan~~ USSR.
Glavniiproekt. All-Union Aluminum-Magnesium Inst
VAMI) 125 pp. List of author's works, pp 13-14.
(KL, 29-58, 131)

- 47 -

ARAKELYAN, O. I.

"Solid Solutions of the Na_2O - Al_2O_3 - Fe_2O_3 System" p. 484

Transactions of the Fifth Conference on Experimental and Applied Mineralogy and Petrography, Trudy ... Moscow, Izd-vo AN SSSR, 1958, 516pp.

reprints of reports presented at conf. held in Leningrad, 26-31 Mar 1956. The purpose of the conf. was to exchange information and coordinate the activities in the fields of experimental and applied mineralogy and petrography, and to stress the increasing complexity of practical problems.

AUTHORS: Toropov, N.A. and Arakelyan, O.I. SOV/136-58-9-10/21

TITLE: Investigation of Ferrite Phases in the Systems $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$, ($\text{CaO} \cdot \text{Fe}_2\text{O}_3$, $\text{CaO} \cdot 2\text{Fe}_2\text{O}_3$) and $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$. (Issledovaniye ferritnykh faz v sistemakh $\text{Na}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ etc)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 9, pp 48-52 (USSR)

ABSTRACT: The phases found in two systems of interest in the treatment of bauxites were studied by microscopy in polarized and reflected light and by X-ray analysis. For this a series of synthetic specimens with compositions changing by $\pm 10\%$ between each, prepared by sintering the corresponding mixtures at, and re-sintering the first product at $1150-1275^\circ\text{C}$. Experiments on the leaching of the products (Table 2) were carried out by A.S. German-Galkina. It was found that for the system $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$ ($\text{CaO} \cdot \text{Fe}_2\text{O}_3$, $\text{CaO} \cdot 2\text{Fe}_2\text{O}_3$) there was a eutectic ratio of components in the specimens, in the system $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$ the eutectic has a melting point of $1185 \pm 10^\circ$ and contains 53% of $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ and 47% 2CaO .

Ger1/2

SOV/136-58-9-10/21

Investigation of Ferrite Phases in the Systems $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$, $(\text{CaO} \cdot \text{Fe}_2\text{O}_3, \text{CaO} \cdot 2\text{Fe}_2\text{O}_3)$ and $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$

Fe_2O_3 . The calcium ferrites formed in an alkaline medium form optically opaque crystals with a weak dark brown pleochroism. In the system $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3$ - $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$ the components react to form solid solutions of sodium aluminate and ferrite and calcium aluminoferrites; the formation of the last leads to a decrease in the recovery of alumina when leaching the cake with aqueous alkali and therefore it is not advisable when choosing a new type of charge, to replace $\text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3$ completely by calcium ferrite.

There are 2 figures, 3 tables and 10 references (4 Soviet, 3 English, 2 Italian and 1 German)

Card 2/2 1. Bauxites -Processing 2. Metal Oxides--Phase studies 3. Metal oxides--Test methods 4. Metal oxides--Chemical reactions

SOV/136-59-6-12/24

AUTHORS: Arakelyan, O.I. and Chistyakova, A.A.

TITLE: Peculiarities of the Microstructure of Aluminium Hydroxide Obtained by Various Methods (Osobennosti mikrostruktury gidrookisi alyuminiya, poluchayemoy razlichnymi sposobami)

PERIODICAL: Tsvetnyye metally, 1959, Nr 6, pp 67-70 (USSR)

ABSTRACT: The authors of this work have carried out investigations of production probes of aluminium hydroxide at the UAZ, DAZ and the Bayer Branch of BAZ, as well as of the hydroxide obtained by the carbonization method at BAZ and TGZ. Crystallographic investigations have shown that the crystal structures of these probes differ considerably from each other. This is shown first of all in the appearance of separate crystals and, even more clearly, by the nature of their aggregation and the size of the deposit obtained. Aluminium hydroxides are made by two methods: "centrifuging" (Bayer process) and carbonization of aluminate solutions (in establishments where sintering is used). Aluminium hydroxide is obtained from aluminate solutions by the two abovementioned methods

Card 1/4

SOV/136-59-6-12/24

Peculiarities of the Microstructure of Aluminium Hydroxide
Obtained by Various Methods

as gibbsite ($\text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$). Under production conditions the crystallization of gibbsite is aggregational by nature and only occasionally are monocrystals encountered. At the surface of the latter traces of a layer growth in the form of continuous spiral layers can be seen (Fig 1). With the Bayer process it is impossible to obtain crystals $>30 \mu$ (Ref 1). As regards the basic masses of the hydroxide, the latter is represented by the polycrystalline aggregates. The crystals aggregate in the form of thin plates (Fig 2). In Fig 3 an idiomorphic hexagonal crystal with a zonal fading away is shown (hydroxide of UAZ). The particle size of the hydroxide varies fundamentally with the method of production, as can be seen from the Table, p 69. Rectangular, coarse, drawn out, wedge-like crystals are obtained by the carbonization process. In contrast

Card 2/4

SOV/136-59-6-12/24

Peculiarities of the Microstructure of Aluminium Hydroxide
Obtained by Various Methods

to that obtained by the Bayer process, the nature of aggregation of such crystals is radial (see Fig 4). Bayerite, in contrast to gippsite (monoclinic), crystallizes in the hexagonal system. With the aim of examining optical properties, which are very important for the correct diagnosis of aluminium hydroxide, the authors produced bayerite from a dilute alkaline aluminate solution (135 g/litre total alkali) which was kept in a stoppered bottle for a long time at room temperature. After 7 to 10 days a spontaneous decomposition of the solution commenced with precipitation of a flocculent white deposit. X-ray structure and crystallo-optical investigations have shown that it was bayerite. Thermal analysis does not show any difference between gippsite and bayerite. The microstructure of the specimen obtained is characterized by a fine crystalline aggregation of the anisotropic grains, a grey interference colour and a definite refractive index.

Card 3/4

SOV/136-59-6-12/24

Peculiarities of the Microstructure of Aluminium Hydroxide
Obtained by Various Methods

There are 4 figures, 1 table and 5 Soviet references.

Card 4/4

S/136/60/000/08/001/008

E193/E183

AUTHORS: Fors'tom, G.V., Arakelyan, O.I., Kuznetsova, Ye.I.,
and Goldelenok, Ye.G.

TITLE: Investigation of the Structure of Titanium Sponge 21

PERIODICAL: Tsvetnyye metally, 1960, No 8, pp 50-51

TEXT: Microscopic examination of samples of titanium sponge, taken from various parts of a batch produced by the chloride process, revealed that most diverse forms of crystallization of titanium are encountered in the central zone of the reaction chamber, where dendrites of various sizes, platelike crystals of hexagonal habit, agglomerates of columnar crystals, and single crystals of irregular shape, are formed. These results, correlated with the data on the reaction conditions, indicate that the mode of crystallization of titanium depends on temperature and the concentration (rate of feed) of titanium tetrachloride. Thus, slow rates of reaction are favourable for the formation of large, well-developed dendrites and for the uniform growth of crystals. At increased rates of feed of titanium tetrachloride, ✓

Card 1/2

S/136/60/000/08/001/008

E193/E183

Investigation of the Structure of Titanium Sponge

the rate of crystallization increases and the metal crystallizes in the form of thin dendrites. If the temperature is raised to 1000 °C, and the rate of feed of titanium tetrachloride slowed down, the sponge obtained in the central zone of the reaction vessel is granular and contains single crystals. At lower temperatures, the thickness of dendrites increases with decreasing specific consumption of tetrachloride. In general, it can be concluded that structure of titanium sponge depends more on the rate of feed of titanium tetrachloride than on the reaction temperature. ✓

There are 4 figures, (photomicrographs).

ASSOCIATION: VAMI

Card 2/2

Васильевский алюминийно-магниевый институт

S/136/60/000/011/007/013
E021/E406

AUTHORS: Arakelyan, O.I., Lyapunov, A.N., Chistyakova, A.A. and
Kavina, V.A.

TITLE: Study of Phase Transformations of the Hydroxide in
Different Conditions of Decomposition of Aluminate
Solutions

PERIODICAL: Tsvetnyye metally, 1960, No.11, pp.54-58

TEXT: Experiments were carried out on the phase transformations occurring during the decomposition of aluminate solutions in the presence of two types of nuclei (hydrargillite or bohmite) at 65 and 95°C. At 65°C, the experiments lasted 79 days. A solution containing 125.6 g/l Na₂O and 119 g/l Al₂O₃ was used. The degree of decomposition after seven days was 38.2% using a bohmite nucleus and 50.2% using a hydrargillite nucleus. After 79 days only hydrargillite was found with very small inclusions of bohmite where bohmite nuclei were used, thus showing that bohmite is not stable at 65°C. At 95°C with a solution containing 117 g/l Na₂O and 166 g/l Al₂O₃, using bohmite nuclei 40 to 58% decomposition occurred after seven days according to the source of the bohmite. It was shown that the precipitate contained 87% bohmite and 13% hydrargillite. When hydrargillite nuclei were used,
Card 1/2

ARAKELIAN, O.I.; CHISTYAKOVA, A.A.

Role and characteristics of water in the investigation of the phase
and mineralogical composition of sodium hydroaluminosilicate. TSvet.
met. 34 no. 4:42-44 Ap '61. (MIRA 14:4)

(Sodium aluminosilicates--Analysis)

ARAKELIAN, O.I.; CHISTYAKOVA, A.A.

Investigating alumina phase constitution in aluminum bath
electrolytes. TSvet.met. 34 no.10:64-68 0 '61. (MIRA 14:10)
(Aluminum--Electrometallurgy)
(Phase rule and equilibrium)

ARAKELIAN, O.I.; CHISTYAKOVA, A.A.

Synthetic boehmite. Zhur.prikl.khim. 35 no.7:1448-1454 J1
'62. (MIRA 15:8)

(Boehmite)

ARAKELIAN, O.I.; CHISTYAKOVA, A.A.; PAVLOV, Yu.I.; PODZOROVA, L.M.

Formation of hydrogarnets in muds from alumina production.

TSvet.met. 35 no.8:54-58 Ag '62.

(MIRA 15:8)

(Alumina)

(Hydrogarnet)

SAZHIN, V.S.; SHOR, O.I.; ARAKELIAN, O.I.; VOLKOVSKAYA, A.I.; KOLESNIKOVA, I.A.

Solid phases formed in the system $\text{Na}_2\text{O} - \text{Al}_2\text{O}_3 - \text{SiO}_2 - \text{H}_2\text{O}$.
Ukr. khim. zhur. 29 no.11:1123-1128 '63. (MIRA 16:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

ARAKELIAN, O.I.; KLYUCHNIKOVA, Ye.F.

Investigating sodium and potassium aluminates hydrates formed in
alumina production residues. TSvet. met. 36 no.1:43-50 Ja '63.
(MIRA 16:5)
(Aluminum industry--By-products) (Aluminate--Testing)

GERMAN-GALKINA, A.S.; ARAKELYAN, O.I.

Nature of the chemical losses of alumina in the processing of hydro-
gillite bauxite slimes by the hydrochemical method. TSvet. met. 36
no.11:53-59 N '63. (MIRA 17:1)